

What is claimed is:

1. A digital transmitter-receiver comprising:
 - a receiving unit for receiving digital data transmitted in accordance with a first transmission protocol;
 - 5 a transcoder for converting the received data to data in accordance with a second transmission protocol; and
 - a transmitting unit for transmitting output data from said transcoder to a terminal apparatus,
 - wherein said transmitting unit monitors a transmission state and informs
 - 10 said transcoder of the transmission state,
 - wherein said transcoder, based on the transmission state, changes and outputs data rate of the digital data.
2. The digital transmitter-receiver according to claim 1 further
 - 15 comprising a first switching unit,
 - wherein number of said receiving units is plural,
 - wherein said first switching unit selects the digital data received by said plurality of receiving units, and feeds the digital data to said transcoder.
3. The digital transmitter-receiver according to claim 2 further
 - 20 comprising a second switching unit,
 - wherein number of said transmitting units is plural,
 - wherein output from said transcoder is fed into a transmitting unit selected by said second switching unit.
4. The digital transmitter-receiver according to claim 2,
 - 25 wherein said first switching unit selects one of said plurality of receiving

units responsive to a request of the terminal apparatus.

- 5 5. The digital transmitter-receiver according to claim 3,
 wherein said first switching unit selects one of said plurality of receiving
 units responsive to a request of the terminal apparatus.

- 10 6. The digital transmitter-receiver according to claim 3,
 wherein said second switching unit selects one of said plurality of
 transmitting units responsive to a request of the terminal apparatus.

- 15 7. The digital transmitter-receiver according to claim 5,
 wherein said second switching unit selects one of said plurality of
 transmitting units responsive to a request of the terminal apparatus.

- 20 8. The digital transmitter-receiver according to one of claim 1 through
 claim 7,

 wherein the digital data is a first MPEG transport stream,

- wherein said transcoder separates a video elementary stream and an
 audio elementary stream from the MPEG transport stream, reduces data rate of
25 the video elementary stream by at least one of thinning of a picture from the
 video elementary stream and thinning of a high frequency component of a
 discrete-cosine-transform (DCT) coefficient, and outputs a second MPEG
 transport stream by multiplexing the video elementary stream after the rate
 reduction and the audio elementary stream .